Anticholinergic Burden in Hospice Patients with Dementia
Anne Williams;1 Leah Sera, PharmD, MA, BCPS;2 Mary Lynn McPherson, PharmD, MA, BCPS, CPE 3
University of Maryland School of Pharmacy

BACKGROUND
• The use of drugs with anticholinergic properties (DAP) and their questionable benefits remains prevalent in elderly patients and patients with dementia.1,2 Studies have shown that:
  • In nursing homes >30% of elderly residents are prescribed 2 or more DAPs.3
  • Up to 77% of elderly patients with dementia use at least one DAP.4
  • In patients ≥ 65 years, an Anticholinergic Cognitive Burden (ACB) score of 5 or higher is associated with severe cognitive burden, impairment with activities of daily living and decreased quality of life.5
  • Higher anticholinergic burdens have been associated with increased risk for:
    • Delirium6
    • Falls7
    • Peripheral and central anticholinergic side effects1,2

OBJECTIVES
• Evaluate the average anticholinergic burden in hospice patients with dementia.
• Characterize the use of drugs with anticholinergic properties in hospice patients with dementia.

METHODS
Study Design & Instruments:
• Retrospective chart review of a large, national hospice organization and their affiliated pharmacy provider
Participants & Setting:
• Patients with a diagnosis of dementia who were admitted to a national hospice organization after January 1, 2016 and discharged by death by December 31, 2016.
Data collection (variables)
• Age, sex, and race
• Prescribed medications
• Medications dispensed by the affiliated pharmacy provider
Study was IRB exempt

DATA ANALYSIS
• The ACB scale was used to calculate anticholinergic burden.
• The ACB scale has been linked to adverse outcomes and is one of the most frequently validated expert based anticholinergic scales.8,9
• The ACB scale assigns each DAP a score from 1-3, with 3 having the highest anticholinergic impact.9

RESULTS
• 1,283 patients were included in this study, 37.1% (n=476) were prescribed at least one DAP.

CONCLUSIONS
• The three most commonly prescribed DAPs were quetiapine, atropine and hyoscyamine.
• While over one-third of the population was prescribed a DAP, the majority were only prescribed one.
• Of the patients prescribed a DAP, the majority (94%) had an ACB of 3 or greater.
• Of the patients prescribed a DAP, the average anticholinergic burden was 3.8

REFERENCES
10. Villalba-Moreno A et al. (2016) Arch Gerontol Geriatr 64, 178-180